

ID Q41238_SOLTU PRELIMINARY; PRT; 857 AA.
 AC Q41238;
 DT 01-NOV-1996 (TrEMBLrel. 01, Created)
 DT 01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
 DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
 DE Linoleate:oxygen oxidoreductase (Fragment).
 OS Solanum tuberosum (Potato).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
 OC lamiids; Solanales; Solanaceae; Solanum.
 OX NCBI_TaxID=4113;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=94302170; PubMed=8029354; DOI=10.1104/pp.105.1.269;
 RA Geerts A., Feltkamp D., Rosahl S.;
 RT "Expression of lipoxygenase in wounded tubers of Solanum tuberosum
 RT L.";
 RL Plant Physiol. 105:269-277(1994).
 CC -!- FUNCTION: Plant lipoxygenase may be involved in a number of
 CC diverse aspects of plant physiology including growth and
 CC development, pest resistance, and senescence or responses to
 CC wounding (By similarity).
 CC -!- CATALYTIC ACTIVITY: Linoleate + O(2) = (9Z,11E)-(13S)-13-
 CC hydroperoxyoctadeca-9,11-dienoate.
 CC -!- COFACTOR: Iron (By similarity).
 CC -!- SIMILARITY: Belongs to the lipoxygenase family.
 CC -!- SIMILARITY: Contains 1 PLAT domain.
 DR EMBL; S73865; AAB31252.1; -.
 DR HSSP; P08170; 1FGT.
 DR GO; GO:0005506; F:iron ion binding; IEA.
 DR GO; GO:0016165; F:lipoxygenase activity; IEA.
 DR GO; GO:0016491; F:oxidoreductase activity; IEA.
 DR GO; GO:0006118; P:electron transport; IEA.
 DR InterPro; IPR000907; Lipoxygenase.
 DR InterPro; IPR001024; Lipoxygenase_LH2.
 DR InterPro; IPR001246; Plant_lipoxygenase.
 DR InterPro; IPR008976; PLAT_LH2.
 DR Pfam; PF00305; Lipoxygenase; 1.
 DR Pfam; PF01477; PLAT; 1.
 DR PRINTS; PR00087; LIPOXYGENASE.
 DR PRINTS; PR00468; PLTLPOXGNASE.
 DR SMART; SM00308; LH2; 1.
 DR PROSITE; PS00711; LIPOXYGENASE_1; 1.
 DR PROSITE; PS00081; LIPOXYGENASE_2; 1.
 DR PROSITE; PS50095; PLAT; 1.
 KW Dioxxygenase; Iron; Oxidoreductase.
 FT NON TER 857 857
 SQ SEQUENCE 857 AA; 96585 MW; 3785A24E8DBA8DA7 CRC64;
 1 QIVGGLIGGH HDSKKVKGT VMMKKNALDF TDLAGSLTDK IFEALGQKVS FQLISSVQSD
 61 PANGLOQKHS NPAYLENFLF TLTPLAAGET AFGVTFDWE EFGVPGAFII KNTHINEFFL
 121 KSLTLEDVFN HGKVFHVCNS WVYPSFRYKS DRIFFANQPY LPSETPELLR KYRENELLTL
 181 RGDGTGKREA WDRIYDYDVY NDGNPDQGE QNVRTTLGGS ADYPYPRGR TGRPPTRTDP
 241 KSESRIPLIL SLDIYVPRDE RFGHLKMSDF LTYALKSIVQ FILPELHALF DGTPEFDSF
 301 EDVLRLEYEGG IKLPQGPLEFK ALTAAPLEM MKELLRTDGE GILRFPTPLV IKDSKTAWRT
 361 DEEFAREMLA GVNPIIISRL QEFPPKSKLD PEAYGNQNST ITAEHIEDKL DGLTVDEAMN
 421 NNKLFILNHH DVLIPYLRRI NTTTTKTYAS RTLLFLQDNG SLKPLAIELS LPHPDGDQFG
 481 VISKVYTPSD QGVESIIWQL AKAYVAVNDS GVHQLISHWL NTHAVIEPFV IATNRQLSVL
 541 HPIHKLLYPH FRDTMNIAM ARQILINAGG VLESTVPSK FAMEMSAVY KDWVFPDQAL
 601 PADLVKRGVA VEDSSSPHGV RLLIEDYPYA VDGLEIWSAI KSWVTDYCSF YYGSDDEILK
 661 DNELQAWWKE LREVGHGDKK NEFPWPPEMET PQELIDSCTT IIVIASALHA AVNFGQYPYA

TV
TF